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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HESLIN ROTHENBERG FARLEY & MESITI PC 5 COLUMBIA CIRCLE ALBANY, NY 12203				
EXAMINER				
MOORE, MARGARET G				
ART UNIT		PAPER NUMBER		
1712				

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/636,101

Applicant(s)

GHOSHAL, RAMKRISHNA

Examiner

Margaret G. Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 to 27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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1. The disclosure is objected to because of the following informalities: The specification refers to the compound (IIA) incorrectly. For instance on pages 6 and 20, it is referred to as 3,4-epoxycyclohexyl 3',4'-epoxycyclohexane carboxylate while on page 12 it is referred to as 3,4-epoxycyclohexylmethyl 3',4'-epoxycyclohexane carboxylate. The latter name is the correct name for the compound.

Appropriate correction is required.

2. Claims 1 to 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The basis for the parts by weight ranges is undefined and as such these limitations are unclear. This applies to all of the claims.

Also, in claims 1 and 12, 3,4-epoxycyclohexyl 3',4'-epoxycyclohexane carboxylate is not the correct name for the structure shown.

As a minor informality, "elastomers", compound (v) in claims 1 and 12, is misspelled.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 to 3, 10, 12 to 14 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ghoshal et al. '970.

Ghoshal et al. teach epoxy resin compositions. Column 3 teaches siloxane containing siloxanes that include (IA) and column 5, lines 15 to 23, teaches non-siloxane epoxies that meet (IIA) and (IIB). Furthermore, the optional compounds on column 12, lines 41 to 46, meet compound (C) as they include elastomers. See also the bottom of column 9 which teaches EECH as a preferred compound (meeting (IIA)), and the top of column 9 which teaches a preferred siloxane meeting instant (IA).

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Particular attention is drawn to the working examples. See Example 3 which contains, based roughly on 100 parts by weight total composition, 46 parts by weight EECH, 35 parts by weight siloxyl monomer I, 15 parts by weight of a polybutadiene elastomer, .7 parts by weight adhesion promoter and, as a catalyst, a 50% solution of a diaryliodonium salt meeting (III) in an EECH carrier medium. This corresponds to a composition containing 35 parts by weight (IA), 0 parts by weight (B), 46 parts by weight (IIA), 15 parts by weight (D), 2 parts by weight of a 50% catalyst solution and .7 parts by weight of an adhesion promoter. This anticipates each claimed component and amount in claims 1, 2, 3 (when the catalyst is the antimonite catalyst) and 10. The Examiner notes that this is not the only working example that anticipates the instant claims. Also see Example 8.

With regard to claims 12 to 14 and 20, note that fillers can be added to this base resin composition in amounts that meet that claimed. See for instance Example 20 (wherein PLV-65 is defined on column 20, line 12, as silica). Also note the amounts of base resin and filler taught in claim 1.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4, 15, 22, 24, 26 and 27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ghoshal et al.

With regard to the limitations of claims 4 and 15, the Examiner notes that these claims use the term "about" to modify the amount of catalyst and carrier. The term "about" allows for some latitude in the wt% required by these claims and broadens the limitation to allow amounts greater than and less than that claimed. As such, given the breadth allowed for the term "about", it would appear that the 50/50 wt% solution in the working examples meet the claimed amounts of "about 40 wt%" and "about 60 wt%".

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On the other hand, a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. Since the catalysts, when used in 50 wt% and about 40 wt%, are used in the same manner and result in the same property, i.e. a cured system, one having ordinary skill in the art would have found such a slight difference in amount to have been obvious.

Regarding claims 22 and 24, note that the working examples as well as column 13, lines 30 to 35, teach that the composition can be cured at a temperature within the claimed range. Patentees do not specifically teach the degree of polymerization. However one having ordinary skill in the art would have expected 100% cure under the cure conditions used by Ghoshal et al. because it would be expected that patentees would desire as close to 100% cure as possible, and thus would have performed cure to meet such a degree. In this manner it would appear that the curing conditions in Ghoshal inherently meet this claim requirement.

On the other hand, column 13, lines 35 to 40, teaches that one can optimize the heating times and temperatures. It has been held that where the general conditions of a claim are disclosed in the prior art discovering the optimum or workable ranges involves only routine skill in the art. As such it would appear to have been obvious to optimize the cure and heating conditions such that one obtains greater than 90% polymerization. In this manner claims 22 and 24 would have been obvious to the skilled artisan.

Note that claims 26 and 27 are comparably anticipated and/or rendered obvious by Ghoshal et al. for reasons consistent with that noted for claims 22 and 24.

7. Claims 5 to 9, 11, 18, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ghoshal et al.

With regard to claim 5, the Examiner notes that column 9, line 35, teaches that bisphenol A diglycidyl ether (structure (IIB) when "n" is 0) can be included in the composition. Lines 15 to 17 on column 10 teaches that multiple epoxy resins can be included in this composition. As such one having ordinary skill in the art would have found the addition of a bisphenol A diglycidyl ether into the composition of Ghoshal et al. to have

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been obvious. At the least one would have been motivated to include such a compound into the composition of Ghoshal et al. with a reasonable expectation of success.

With regard to claim 6, note the rationale supra regarding the limitation "about 40 wt%" and "about 60 wt%" as it presently applies.

Regarding claims 11 and 21, the Examiner notes that Ghoshal et al. do not specifically show a composition using the phosphate catalyst. However such a catalyst is shown on column 10, line 50, as alternative catalyst that can be used in the equivalent with the antimonite catalyst in the working examples. One having ordinary skill in the art would have been motivated to use such a phosphate catalyst in the compositions of Ghoshal et al. with an expectation of obtaining comparable results. This renders these claims obvious.

Regarding claims 7 to 9, 18 and 19 patentees do not specifically teach a blend of catalysts although components (A) and (B) are shown on column 10, lines 35 to 50. It is prima facie obvious to combine two compositions, each of which is taught by prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. The idea for combining said compositions flows logically from their having been individually taught in the prior art. Thus mixing the different catalysts in an effort to obtain a third composition having comparable curing properties would have been obvious to one having ordinary skill in the art. At the least such claims would have been within routine experimentation and/or optimization for the skilled artisan. As such the skilled artisan would have found these claims to combinations of the catalysts taught by Ghoshal et al. to have been obvious.

8. Claims 16, 17, 23 and 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

With regard to claims 16 and 17, the prior art fails to teach or suggest a composition, in combination with each component (A), (C) and (D), that contains an amount of (B) as required by instant claim 16.

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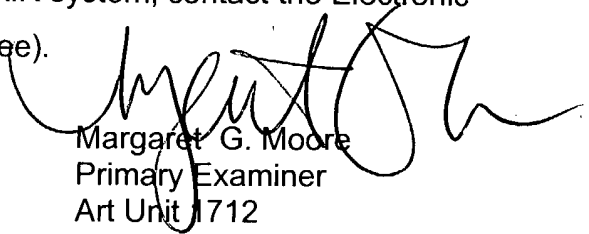
With regard to claims 23 and 25, this secondary, or post baking, step is not taught nor suggested by the prior art.

9. Crivello is cited as being of general interest. This teaches a composition that can contain (IA) or (IB) but fails to teach or adequately suggest (IA) alone, or in combination with (IB), and (C) in amounts as required by the claims. Also this reference does not teach the catalyst solution as claimed or a coating composition. This composition prepares microbeads. Crivello et al. teach diaryliodonium salts that meet formula (III) when R is methyl. This does not teach or suggest the composition as claimed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Margaret G. Moore
Primary Examiner
Art Unit 1712

mgm
12/6/04